

Patent Claims

1. Protective boot comprising bellows (1) which terminate in a cylindrical bellows portion in which a bushing (2) is fitted, the outer diameter of the bushing (2) being at least equal to the inner diameter of the bellows portion, characterized in that the bushing (2) comprises a material that is substantially transparent for a wavelength suitable for laser welding and the bellows (1) comprises a material that acts substantially absorbently, and in that the bushing (2) and the bellows (1) are materially connected by means of a laser-welded connection.

2. Protective boot comprising bellows (1) which terminate in a cylindrical bellows portion in which a bushing (2) is fitted, the outer diameter of the bushing (2) being at least equal to the inner diameter of the bellows portion, characterized in that the bellows (1) comprise a material that is substantially transparent for a wavelength suitable for laser welding and the bushing (2) comprises a material that acts substantially absorbently, and in that the bushing (2) and the bellows (1) are materially connected by means of a laser-welded connection.

3. Protective boot according to claim 1, characterized in that the bellows (1) and the bushing (2) are made from the same thermoplastic in which carbon black particles are mixed in only for the bellows (1).

4. Protective boot according to claim 2, characterized in that the bellows (1) and the bushing (2) are made from the same thermoplastic in which carbon black particles are mixed in only for the bushing (2).

5. Protective boot according to claim 1 or 3, characterized in that the bushing (2) has an area in which it has a constant wall thickness (d) along its circumferential lines.

6. Protective boot according to claim 5, characterized in that the inner diameter of the bushing (2) is constant along the aforementioned area in which a collar (7) is formed.

7. Protective boot according to claim 5, characterized in that the inner diameter of the bushing (2) is adapted continuously to the outer diameter along the aforementioned area in which a bevel (8) is formed.

8. Protective boot according to one of the preceding claims, with the exception of claims 2 and 4, characterized in that the bellows (1) is made of Hytrel 8223 and the bushing (2) is made of Hytrel 5526.